



## **Jump Shot**

### *OrthoIndy's ACL FIT Program Combines Injury Prevention, Education*

In the United States alone, physicians will see more than 95,000 Anterior Cruciate Ligament (ACL) injuries per year and they will perform more than 50,000 reconstructive surgeries, according to the American Academy of Orthopaedic Surgeons (AAOS).

These injuries can be a frequent problem for many athletes, especially during basketball season, now in full swing. But common exercises such as forward lunges, power skips, knee raises and focused kicks can aid in injury prevention while keeping more athletes in the game.

“Recent studies show that paying particular attention to movement can greatly reduce the chances for an ACL injury to occur,” said Dr. Scott Gudeman, a sports medicine specialist for OrthoIndy South. “Additionally, female athletes who are at an increased risk of injury should focus on proper form when jumping and landing.”

OrthoIndy's ACL Functionally Integrated Training (FIT) program takes athletes through a course of sensible exercises designed to prevent ACL tears through the use of proper techniques for jumping and landing. After recognizing and noting a large number of female athletes reporting ACL injuries, OrthoIndy physician extender, Brian Peavler, ATC, LAT, CSCS, developed the ACL FIT program. By working with Gudeman, Peavler is ensuring more athletes, including females, are remaining injury-free.

“Female athletes are 2.4 to 9.5 times more likely to injure their ACL than their male counterparts,” Peavler said. “We created the ACL FIT program to address this concern while offering all athletes vital information that can help them avoid excruciating pain associated with an ACL tear.”

The ACL FIT program acts upon the premise that all sports have similar patterns that include rotational, lateral, straight ahead and diagonal movements. The program also emphasizes proper handling of body weight. When followed closely, the musculature vital to ACL injury prevention are strengthened.

“We work with the athlete on a functional warm-up, strength training, balance and plyometrics,” Peavler said. “When these exercises are completed two or three times per week for about 20 minutes, the athlete is better positioned to get the most out of their respective sport while taking steps to prevent an ACL injury.”

OrthoIndy's ACL FIT program is free to the public and available online by visiting <http://www.orthoindy.com/coachortrainer/aclfir/>. Additionally, the program can be completed anytime before, during or after the sports season ends. ACL FIT can also be completed individually or within groups, anywhere, but for best results, Peavler suggests a basketball court.

"Because ACL FIT does not require equipment, the athlete can perform the exercises virtually anywhere that it is convenient," he said. "However, a basketball court provides an ideal surface and a large amount of room necessary to enable the free flow of movement."

To learn more about OrthoIndy's ACL FIT program, visit [www.orthoindy.com](http://www.orthoindy.com). To schedule an appointment with Peavler or Dr. Gudeman, call (317) 884-5350.

To avoid ACL injuries, consider the following:

- Athletes should be encouraged to land on the balls of the feet rolling onto the heels as the ankles and knees bend followed by flexion of the hips (leaning forward at the waist). Telling the athlete to pretend they are landing on eggs without breaking them can reinforce proper form.
- The athlete should keep the knees out over the last two toes. This keeps the knees from a very vulnerable "knock kneed" position.
- Warm-ups should include walking with high knees, walking with high knees and an upper body twist, walking with high knees and an extended kick, and walking balanced with a swock or back leg extension.
- After completing the warm-up, basic exercises include diagonal walking lunges with an upper body rotation. These exercises should be done going from one side of the basketball court to the other, rotating from either side. Overhead basketball squats with a heel raise between 2 inches by 15 inches and single leg balances with a partner should be encouraged. Additionally, athletes should be encouraged to flex at the knees and the hips for overhead squats and no more than 30 seconds rest between sets. Athletes should also keep knee flexion at approximately 45 degrees to minimize the amount of touches to the ground from the opposite foot.
- During the final weeks of the ACL FIT program, exercises should consist of power grids, jump stops, side shuffles, and power jumps with a basketball.